Week No.	Week of...	Lecture reference (Griffiths)	Topic	Problem Set No.	Due 5 PM on...
1	20-Jan	1.1.5, 1.3.2-1.3.6	Vector and tensor transformations, fundamental theorems		
		1.4-1.6	Curvilinear coordinates, Dirac delta function,		
		1.4-1.6	theory of vector fields		
2	27-Jan	2.1-2.2.3	Electrostatic fields, Gauss's law		
		2.2.4-2.3	Electrostatic potential and boundary conditions		
		2.4, 2.5.1	Electrostatic work and energy, conductors	1	31-Jan
3	3-Feb	3.1.1-3.1.4	Laplace's and Poisson's equation, simple and relaxation solutions		
		3.1.5, 3.2.1-3.2.2	Uniqueness of solution, method of images		
		3.3.1	Separation of variables in Cartesian coordinates	2	7-Feb
4	10-Feb	3.4.2, 3.4.4	Ideal electric dipole and its field		
		4.1-4.2.1	Forces and torques on electric dipoles; polarization		
		4.3-4.4.1	Gauss's law in dielectrics, **D**, linear dielectrics	3	14-Feb
5	17-Feb	4.4.3-4.4.4	Energy in dielectrics, forces on dielectrics		
		5.1.1-5.1.2	Lorentz force law, particle trajectories in static fields		
		5.1.3	Current, forces on wires, current densities; charge conservation	4	21-Feb
6	24-Feb	5.2, 5.3.1-5.3.2	Biot-Savart law, divergence of **B**		
		5.3.2	Ampere's law		
		(27-Feb)	MIDTERM 1 (covers PS 1-4)		
7	3-Mar	5.3.3-5.3.4	Applications of Ampere's law, static Maxwell equations		
		5.4.1-5.4.2	Vector potential, magnetostatic boundary conditions		
		5.4.3	Ideal magnetic dipole and its field	5	7-Mar
8	10-Mar	6.1.1-6.1.2, 6.1.4	Forces and torques on magnetic dipoles; magnetization		
		6.3, 6.4.1	Ampere's law in magnetic materials, **H**, linear magnetic media		
		6.4.2	Ferromagnetism	6	14-Mar
9	17-Mar	7.1	Ohm's law, EMF		
		7.2.1-7.2.2	Faraday's law		
		7.2.3-7.2.4	Energy in magnetic fields, inductance	7	21-Mar
	24-Mar		SPRING RECESS		
10	31-Mar	7.3.1-7.3.3	Maxwell's equations in free space		
		7.3.5-7.3.6	Maxwell's equations in matter, boundary conditions		
		10.1	Maxwell's equations for potentials; gauge transformations	8	4-Apr
11	7-Apr	8.1.1	Continuity equation		
		8.1.2	Poynting's theorem		
		(10-Apr)	MIDTERM 2 (covers PS 1-8)		
12	14-Apr	9.1.1-9.1.2	Wave equation in one dimension, general solution, sinusoidal waves		
		9.2	EM waves in vacuum, energy and momentum		
		9.3.1-9.3.2	EM waves in a linear insulator, reflection at normal incidence	9	18-Apr
13	21-Apr	11.1.1-11.1.2	EM fields of an oscillating electric dipole		
		11.1.1-11.1.2	Electric dipole radiation and power		
		9.1.4	Polarization and angular momentum of EM waves	10	25-Apr
14	28-Apr	---	Jones vectors: how to control polarization		
		9.4.1-9.4.2	EM waves in a conductor, reflection at normal incidence		
		9.5.1, 9.5.3	EM waves in a coaxial cable	11	2-May
15	5-May	---	Interference and coherence of >1 dipole radiator		
		---	Radiation pattern from >1 dipole		
		---	Connection to diffraction (Babinet)	12	9-May
16	12-May	---	Review		
		(13-May)	INSTRUCTION ENDS		
17	19-May	---			
		(20-May)	110A FINAL EXAM (Group 9, 8-11 AM) (covers PS 1-12)		